

Patent Claims:

1. Method for identifying a drop in pressure in the tire of a vehicle,
characterized in that the detection method operates in dependence on at least one driving dynamics variable.
2. Method as claimed in claim 2,
characterized in that driving dynamics comprises one or more of the following variables: vehicle speed, longitudinal acceleration, yaw rate, transverse acceleration, steering angle, curve characteristic quantity, wheel acceleration, wheel slip, wheel slip gradient, tire torsion.
3. Method as claimed in claim 1 or 2, wherein a test quantity is determined from an input quantity for the purpose of pressure loss detection,
characterized in that the input quantity is modified according to the driving dynamics variable.
4. Method as claimed in claim 1 or 2, wherein a test quantity is determined for pressure loss detection,
characterized in that the test quantity is modified according to the driving dynamics variable.
5. Method as claimed in any one of the preceding claims,
characterized in that pressure loss detection remains undone when the driving dynamics variable lies outside a predetermined range of values.

6. Method as claimed in claim 3 or 4,
characterized in that a modification quantity is determined during operation of the vehicle and stored in a non-volatile fashion.
7. Device for identifying a drop in pressure in the tire of a vehicle, in particular for implementing the method as claimed in any one of the preceding claims, including a detection device (11) for pressure loss detection, characterized by a modification device (12, 20, 23, 24) which influences the pressure loss detection in dependence on at least one driving dynamics variable.
8. Device as claimed in claim 7,
characterized in that the modification device operates in dependence on one or more of the following quantities: vehicle speed, longitudinal acceleration, yaw rate, transverse acceleration, steering angle, curve characteristic quantity, wheel acceleration, wheel slip, wheel slip gradient, tire torsion.
9. Device as claimed in claim 7 or 8, wherein the determining device operates with respect to an input quantity, characterized in that the modification device (23b,c, 24b,c) modifies the input quantity according to the driving dynamics variable.
10. Device as claimed in any one of claims 7 to 9, wherein the determining device determines a test quantity, characterized in that the modification device (23a, 24a) modifies the test quantity according to the driving dynamics variable.

11. Device as claimed in any one of claims 7 to 10,
characterized in that the modification
device (20) leaves the pressure loss detection undone when
the driving dynamics variable lies outside a predetermined
range of values.

12. Device as claimed in claim 9 or 10,
characterized by a non-volatile memory (28)
for storing a modification quantity which is determined
during operation of the vehicle.

13. Method for driving dynamics control,
characterized in that the control of driving
dynamics is also effected in dependence on a tire pressure
loss detected.

14. Method as claimed in claim 13,
characterized in that in brake control a
nominal value, and/or a response threshold, and/or a
control algorithm for the brake system is set or changed
in dependence on the loss in tire pressure.

15. Method as claimed in claim 14,
characterized in that when the wheel with
pressure loss is known, a nominal value for this wheel is
changed.

16. Method as claimed in claim 15,
characterized in that a nominal value is
changed for another wheel without pressure loss.

17. Method as claimed in any one of claims 14 to 16, characterized in that when the wheel with a loss in pressure is unknown, a nominal value is changed for all wheels.
18. Method as claimed in claims 13 to 17, characterized in that in traction slip control a nominal value, and/or a response threshold, and/or a control algorithm for the brake system, and/or the engine is set or changed in dependence on the tire pressure condition.
19. Method as claimed in any one of claims 13 to 18, characterized in that the maximum speed of the vehicle is limited by engine intervention when pressure loss is detected.
20. Method as claimed in any one of claims 13 to 19, characterized in that tire pressure loss detection is performed by implementing a method as claimed in any one of claims 1 to 6.
21. Device for driving dynamics control with sensor means, at least one controller (41), actuation means, and a pressure loss detection device (42), in particular for implementing the method as claimed in any one of claims 13 to 20, characterized in that the controller controls the driving dynamics also in dependence on a tire pressure condition determined by the pressure loss detection device.

22. Device as claimed in claim 21,
characterized in that the controller is a
brake controller which sets or changes a nominal value,
and/or a response threshold, and/or a control algorithm
for the brake system in dependence on the tire pressure
condition.
23. Device as claimed in claim 21 or 22,
characterized in that the controller is a
traction slip controller which sets or changes a nominal
value, and/or a response threshold, and/or a control
algorithm for the brake system, and/or the engine in
dependence on the tire pressure condition.
24. Device as claimed in any one of claims 21 to 27,
characterized in that the pressure loss
detection device (42) is configured according to any one
of claims 7 to 12.

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